Appl. No. 10/649,516 Amdt. Dated February 22, 2006 Reply to Office action of November 30, 2005

Attorney Docket No. P16567-US2

EUS/J/P/06-3052

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An opto-mechanical interface apparatus comprising:

an optical hybrid;

an electronic hybrid adapted to receive electronic components;

an adapter fixture for fixing the electronic hybrid and the optical hybrid to one another to form a combined hybrid;

a lower-capsule part; and

an upper-capsule part adapted to mate with the lower-capsule part; and wherein mating of the upper-capsule part and the lower-capsule part encloses at least part of the combined hybrid.

2. (Original) The apparatus of claim 1, wherein the optical hybrid comprises:

an optical chip;

an optical-fiber connector; and

a carrier.

- 3. (Original) The apparatus of claim 2, wherein the optical chip is selected from the group consisting of a transmitter chip and a receiver chip.
- 4. (Currently Amended) The apparatus of claim 1, wherein the lower-capsule part comprises an airing hole airing holes.
- 5. (Currently Amended) The apparatus of claim 1, wherein the upper-capsule part comprises <u>an airing hole</u> <u>airing holes</u>.

Appl. No. 10/649,516 Amdt. Dated February 22, 2006 Reply to Office action of November 30, 2005 Attorney Docket No. P16567-US2 EUS/J/P/06-3052

- 6. (Original) The apparatus of claim 1, wherein the upper-capsule part and the lower-capsule part are mated together via at least one of snap-locking, gluing, and ultra-sound welding.
- 7. (Original) The apparatus of claim 1, wherein:
 the upper-capsule part and the lower-capsule part are mated together; and
 the mated-together upper-capsule part and lower-capsule part form at least one
 cavity.
- 8. (Original) The apparatus of claim 7, wherein the at least one cavity comprises an upper cavity and a lower cavity.
- (Original) The apparatus of claim 8, wherein:
 a first portion of the electronic components is contained within the upper cavity;
- a second portion of the electronic components is contained within the lower cavity.
- 10. (Original) The apparatus of claim 9, wherein: the first portion of the electronic components comprises receiver electronics; and the second portion of the electronic components comprises transmitter electronics.
 - 11. (Original) The apparatus of claim 1, wherein: the electronic hybrid comprises a printed circuit board (PCB); and the electronic components are mounted on the PCB.
- 12. (Currently Amended) The apparatus of claim <u>11</u> [[1]], wherein the PCB comprises:

Appl. No. 10/649,516 Amdt. Dated February 22, 2006 Reply to Office action of November 30, 2005 Attorney Docket No. P16567-US2 EUS/J/P/06-3052

a pin for making an external electrical connection; and a stud for providing stability during assembly.

- 13. (Original) The apparatus of claim 1, wherein the lower-capsule part comprises a lead-through for receiving a protrusion of the electronic hybrid, the protrusion selected from the group consisting of a pin and a stud.
- 14. (Original) The apparatus of claim 1, wherein the lower-capsule part is adapted to permit accurate positioning of the combined hybrid.
- 15. (Original) The apparatus of claim 1, wherein the upper-capsule part is adapted to fix contents of the apparatus.
- 16. (Original) The apparatus of claim 1, wherein the optical hybrid comprises at least one of:

at least one fiber;

at least one transmitter; and

at least one receiver.

17. (Currently Amended) A method of assembling an opto-mechanical interface apparatus, the method comprising:

forming a combined hybrid, the <u>steps</u> step of forming the combined hybrid comprising:

attaching an adapter fixture to an electronic hybrid; and

attaching an optical hybrid to the electronic hybrid;

placing the combined hybrid in a first capsule part; and

mating a second capsule part with the first capsule part, ; and wherein mating of the first capsule part and the second capsule part encloses at least part of the combined hybrid.

Appl. No. 10/649,516 Amdt. Dated February 22, 2006 Reply to Office action of November 30, 2005 Attorney Docket No. P16567-US2 EUS/J/P/06-3052

- 18. (Original) The method of claim 17, further comprising testing functionality of at least one component of the apparatus prior to the mating step.
- 19. (Original) The method of claim 17, wherein the steps are performed in the order listed.
- 20. (Original) The method of claim 17, wherein the step of mating is performed via at least one of gluing, snap-locking, and ultra-sound welding.
- 21. (Original) The method of claim 17, wherein the step of placing comprises positioning the combined hybrid in the first capsule part.
- 22. (Original) The method of claim 17, wherein the step of mating comprises fixing contents of the apparatus.
- 23. (Original) The method of claim 17, where in the first capsule part is a lower-capsule part and the second capsule part is an upper-capsule part.